

**PATENT**  
Attorney Docket No. 02019CON  
LVM Reference No. 225308

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Kutsovsky

Art Unit: 1793

Application No. 10/720,582

Examiner: Wartalowicz, Paul A.

Filed: November 24, 2003

For: **FUMED METAL OXIDE PARTICLES  
AND PROCESS FOR PRODUCING THE  
SAME**

**SUPPLEMENTAL DECLARATION UNDER 37 C.F.R. § 1.132 OF  
SHELDON B. DAVIS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

I, Sheldon B. Davis, hereby declare that:

1. I am employed by Cabot Corporation, which is the assignee of the subject patent application. I currently hold the position of Manager, Process Research and Development, Performance Segment, at Cabot Corporation. In my current position, I am responsible for overseeing process development for a variety of manufacturing platforms, including the process for preparing fumed metal oxide particles.

2. I am the same Sheldon B. Davis who executed, on March 31, 2009, the Declaration Under 37 C.F.R. § 1.132, which was submitted to the U.S. Patent and Trademark Office in connection with the above-identified patent application on April 1, 2009.

3. As indicated in my earlier Rule 132 declaration, I participated in a meeting with Examiner Paul A. Wartalowicz at the U.S. Patent and Trademark Office on March 11, 2009. In the course of that meeting, I discussed the matters described in my earlier Rule 132 Declaration.

In addition to those matters described in my earlier Rule 132 declaration, I also pointed out to Examiner Wartalowicz that the process for producing fumed metal oxide particles described in the above-identified patent application allows for the production of fumed metal oxide particles having a greater range of values for various properties, such as average primary particle size, average aggregate size, geometric standard deviation of the aggregate sizes, and surface area, than is achieved by conventional processes for the production of fumed metal oxide particles.

4. Thus, unlike conventional processes for the production of fumed metal oxide particles, the inventive process of fumed metal oxide particles can produce a batch of fumed silica aggregates (e.g., containing about 2000 or more fumed silica aggregates) having a primary particle size  $d$  and an aggregate size  $D_{circ}$ , wherein the average of the primary particle sizes  $d_{ave}$ , the average of the aggregate sizes  $D_{circ\ ave}$ , and the geometric standard deviation of the aggregate sizes  $\sigma_g$  ( $D_{circ}$ ) satisfy one or both of the following equations:

$$(1) \quad D_{circ\ ave} \text{ (nm)} < 52 + 2 \times d_{ave} \text{ (nm)}$$

$$(2) \quad \sigma_g (D_{circ}) < 1.44 + 0.011 \times d_{ave} \text{ (nm)}$$

5. I hereby declare that all statements made herein of my own knowledge are true, that all statements made on information and belief are believed to be true, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 30 Apr 09

  
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Sheldon B. Davis